# Frequently Asked Questions

**Why does my water sometimes taste funny and have a strange odor?**

Although the City's water quality has remained very good over the past several years, some customers may be experiencing stagnant water in their homes. With water usage down due to more rain the past two summers and conservation efforts, water sometimes remains in home piping systems longer, which can lead to taste, odor, and even color changes. These issues can be more noticeable in homes with metal pipes or large buildings with vacant spaces. An easy way to freshen water in your home's piping is to open all cold water faucets at the same time for several minutes. You may need to perform this "flush" more than once at first, but after the water clears up, simply repeat as needed. To report this issue, please call Water Quality at 425-452-6192.

What is the average amount a Bellevue residence pays for water for drinking, bathing, irrigation and fire protection, and for sewer and drainage services as well? Less than $4 a day.

**Why is my water sometimes cloudy or bubbly?**

Air trapped in water flowing from a faucet can create incredibly small bubbles as it is released, which causes cloudy, milky, or bubbly water. The bubbles usually float to the surface and disappear. Bubbles often occur in winter when drinking water is cold. However, they can also be from construction or from improper connections to the water system when people winterize irrigation systems incorrectly. If air in your water is a concern, please call Water Quality at 425-452-6192.

**I have a new dishwasher and the directions are asking about water hardness. What does this mean?**

Some newer appliances have settings that are based on the "hardness" of the water supply. Bellevue's water has a hardness of 1.4 – 1.5 grains/gallon, which is very soft compared to other water in the country. Because soft water is easier to lather, you may not need to use as much soap when washing dishes or clothes.

**We just had a new irrigation system installed. Do we need to let the City know?**

Yes. An irrigation system is considered a cross connection. A cross connection is any connection between potable (drinkable) water and any non-potable liquid, solid, or gas that could contaminate the public water supply by backflow. If there is a change in water pressure, irrigation water could be drawn back into the City's water system, causing aesthetic problems or even illness. To prevent contamination of Bellevue's drinking water supply, irrigation systems must have a backflow prevention assembly. Other common cross connections include fire sprinkler systems, boilers, pools/spas, water features, and photo development equipment. State law requires that backflow prevention assemblies be installed and tested annually to ensure proper operation. If you believe you have a cross connection that we are unaware of or if you have questions, please call Bellevue's Water Quality staff at 425-452-5208.

**FAST FACTS**

Residential Population Served: **135,100**

Bellevue's water system contains:

- **27** water reservoirs
- **22** pump stations
- **620** miles of water main pipe
- **40,810** water meters
- **5,812** fire hydrants

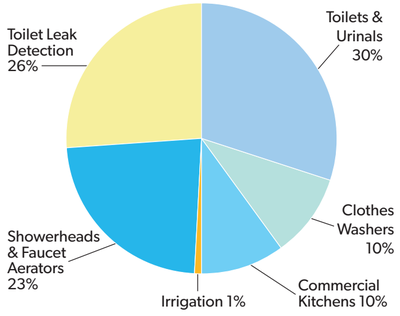
## Bellevue's Water Quality Team keeps busy with…

- Conducting water main flushing, sampling and results tracking, and reservoir inspections.
- Managing the Cross Connection Control/Backflow Prevention Program.
- Assisting customers with water quality issues in their homes.
- Monitoring changing regulations in water distribution and water quality.
- Training for water emergencies with other regional water providers.

## Upgrading your water system

Although the 620 miles of underground water main in Bellevue are out of sight, it's critical to keep these pipes in top shape for high quality, dependable water. Bellevue is ahead of many cities in upgrading its system due to ongoing maintenance, capital planning, and financial policies. In 2011 we ramped up infrastructure improvement by replacing 18,301 linear feet of aging asbestos cement water main pipe with new ductile iron pipe.

## Water savings 2008-2011




## Water conservation update

Water conservation is important to provide a safe, reliable supply of water for our community's needs today and in the future. Bellevue's water conservation goal is to save 355,000 gallons per day (gpd) from 2008 - 2013--an average of 59,000 gpd of new savings each year.

In 2011, Bellevue supplied over 5.73 billion gallons of water to a population of 135,050, with a daytime work force that increases the population to 198,600. Bellevue's water system is fully metered. The City does its part to conserve by minimizing water loss caused by leaks throughout its distribution system. Distribution system leakage or water loss was 8.7 percent of total consumption in 2011, below the Washington State standard of 10 percent.

To encourage conservation, Bellevue offers water efficiency programs through its partnership with Cascade Water Alliance. Conservation programs seek to reduce indoor and outdoor water use by promoting high efficiency plumbing fixtures, appliances, and irrigation technologies, as well as leak detection and repair. Thanks to continuing community support and participation, these programs have been very successful. Since establishing the goal in 2008, Bellevue has saved 566,453 gpd. In 2011, residents, local businesses, property owners, and schools saved 90,029 gpd. (See the chart at left.) Thank you for doing your part to conserve!

To learn more about City conservation programs and what you can do to save water, visit Cascade Water Alliance at **www.cascadewater.org**

*Working on his merit badge, Boy Scout Austin Ulfers interviews Bob Hubbert from Bellevue's Water Quality staff about the City's drinking water quality. When Austin asked how Bellevue's water compares to other cities, Bob was able to share that Bellevue has some of the best drinking water in the nation.*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**City of Bellevue Resources**

**Drinking Water Quality** 425-452-6192

**Backflow Assembly Testing** 425-452-5208

**Utilities Operations and Maintenance & 24-hour Emergency Services** water main breaks, lack of water 425-452-7840

**Billing Issues** 425-452-6973

**Discounts for low-income seniors and low-income** citizens with disabilities 425-452-5285

**Email:** Utilities@bellevuewa.gov

**Website:** www.bellevuewa.gov/utilities.htm

The Environmental Services Commission advises Bellevue City Council on Utilities issues. For commission meeting dates and other information, call Bellevue Utilities at 425-452-4497 or visit www.bellevuewa.gov/environ_serv_comm.htm

**Safe Drinking Water Act Hotline**

Direct your drinking water questions to EPA's hotline: 1-800-426-4791.

This report contains important information about your drinking water.

To read it in other languages, visit **www.bellevuewa.gov/water_quality.htm**

Các báo cáo này chứa các thông tin quan trọng về nước uống của quý vị. Để đọc bằng các thứ tiếng khác, truy cập **www.bellevue.gov/water_quality.htm**

Данный отчет содержит важные сведения о питьевой воде в вашем регионе. На других языках он доступен по адресу: **www.bellevue.gov/water_quality.htm**

Este informe contiene información importante acerca del agua potable. Para leerla en otros idiomas, visite **www.bellevue.gov/water_quality.htm**

本報告內含關於您飲用水的重要資訊。若需要使用其他語言閱讀此資訊，請參觀網站 **www.bellevue.gov/water_quality.htm**

이 보고서에는 식수에 관한 중요한 정보가 들어 있습니다. 다른 언어로 읽으시려면, 다음 웹페이지를 방문하십시오: **www.bellevue.gov/water_quality.htm**

Printed on post-consumer, recycled paper with soy-based ink.


# City of Bellevue Drinking Water Quality Report

Results from testing in 2011

## Safe, dependable water

Water plays a vital role in our everyday lives, and we're pleased to tell you that testing in 2011 showed your drinking water met or exceeded all state and federal drinking water standards. Bellevue's water is safe and clean—some of the best water in the country. This annual report is being sent in compliance with the Safe Drinking Water Act and State Department of Health requirements. Inside, you'll see where your water comes from, what's in your water, how it's kept safe, and other information. If you have any questions about this report or your drinking water, please call Bellevue's Water Quality staff at 425-452-6192.

## Where your water comes from

A recent survey by the Nature Conservancy showed that 75 percent of Americans do not know the source of their drinking water. Do you know where Bellevue's water comes from? Our great-tasting drinking water comes from the Cedar River and Tolt River watersheds in the Cascade Mountains. Bellevue purchases its water from Cascade Water Alliance, an organization that purchases water from Seattle and provides it to Bellevue and seven other member cities and water districts in the Puget Sound region.

Cascade Water Alliance is creating a lasting legacy by establishing a model for regional cooperation and effective public resource management. Cascade provides its members with safe, clean and reliable water in a cost-effective and environmentally responsible manner. Cascade completed its purchase of Lake Tapps in Pierce County and was granted water rights by the State, ensuring the region its first new drinking water supply in decades. The purchase and approval to use this lake for a municipal water source ensures future generations a safe and reliable water supply. Cascade will develop the new municipal water supply in future years. Meanwhile, Cascade will be managing Lake Tapps for recreation while enhancing fish habitat in the White River. Visit Cascade at **www.cascadewater.org**

## Maintaining a high level of service

Many water utilities across our region are feeling the effects of reduced water usage because of back-to-back wetter and colder summers,

the installation of water efficient fixtures, customer conservation efforts, and foreclosed homes and offices sitting empty in a down economy. Water usage in Bellevue has dropped off considerably over the past few years, which is having a noticeable impact on revenues. Unfortunately most of the expenditures for the water utility are relatively fixed. At this time every effort is being made to maintain current service levels without significant rate increases to customers. Our goal is to get through these tough economic times maintaining a high level of service with minimal impacts to our customers. To stay connected to City information, check out the "It's Your City" newsletters at **http://bellevuewa.gov/its_your_city_newsletter.htm** or Bellevue's website at **www.bellevuewa.gov**

## Message from the EPA

Sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally occurring minerals, in some cases, radioactive material; and substances resulting from the presence of animals or from human activity. Drinking water, including bottled water, may reasonably be expected to contain at least small amounts of some contaminants. The presence of these contaminants does not necessarily indicate that the water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the EPA's Safe Drinking Water Hotline at 1-800-426-4791.

Some people may be more vulnerable to contaminants in drinking water than the general population. Immunocompromised persons such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants may be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. Environmental Protection Agency/Centers for Disease Control guidelines on appropriate means to lessen the risk of infection by Cryptosporidium and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

# 2011 Water Quality Monitoring Results

Your water is monitored and tested every day. After testing for close to 200 compounds, only a few were detected, and all were below the maximum level allowed by the EPA (see the chart below). If you would like to see a list of all compounds your water was tested for in 2011, please call Water Quality at 425-452-6192 or visit the City's website.

| | EPA's allowable limits | | Levels in Cedar Water | | Levels in Tolt Water | | | |
|---|---|---|---|---|---|---|---|---|
| **Detected Compounds and Units** | **MCLG** | **MCL** | **Average** | **Range** | **Average** | **Range** | **Typical Sources** | **In Compliance** |
| *Raw Water before treatment* | | | | | | | | |
| Total Organic Carbon ppm | NA | TT | 0.7 | 0.3 - 1.2 | 1.3 | 1.2 to 1.6 | Naturally present in the environment | Yes |
| Cryptosporidium* #100L | NA | NA | ND | ND | ND | ND to 2 | Naturally present in the environment | Yes |
| *Finished Water after treatment* | | | | | | | | |
| Turbidity NTU | NA | TT | 0.4 | 0.2 to 2.9 | 0.06 | 0.04 to 0.15 | Soil runoff | Yes |
| Fluoride ppm | 4 | 4 | 0.8 | .06 to 1.0 | 0.8 | 0.4 to 1.1 | Water additive, which promotes strong teeth | Yes |
| Barium ppb | 2000 | 2000 | 1.4 | (one sample) | 1.2 | (one sample) | Erosion of natural deposits | Yes |
| Nitrate ppm | 10 | 10 | 0.09 | (one sample) | 0.11 | (one sample) | Erosion of natural deposits | Yes |
| Chromium** ppb | 100 | 100 | 0.2 | (one sample) | 0.2 | (one sample) | Erosion of natural deposits | Yes |
| Cadmium ppb | 5 | 5 | ND | (one sample) | 0.8 | (one sample) | Erosion of natural deposits | Yes |
| Total Trihalomethanes ppb | NA | 80 | Average = 28.1<br>Range = 16.0 - 43.1 | | | | By-products of drinking water chlorination | Yes |
| Haloacetic Acids (5) ppb | NA | 60 | Average = 26.4<br>Range = 13.7 - 43.4 | | | | By-products of drinking water chlorination | Yes |
| Total Coliform % positive samples | 0 | 5% | Highest Month = No Positive Samples<br>Annual Average =NA | | | | Naturally present in the environment | Yes |
| Chlorine ppm | MRDLG = 4 | MRDL = 4 | Average = 0.91 mg/L<br>Range = ND – 1.72 mg/L | | | | Water additive used to control microbes | Yes |

*Cryptosporidium was not detected in any samples from the Cedar. It was detected in 1 of 4 samples from the Tolt before treatment.
**The value reported reflects naturally occurring total chromium and not hexavalent chromium.

## Key to abbreviations in chart

**MCLG:** *Maximum Contaminant Level Goal* - The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs allow for a margin of safety.
**MCL:** *Maximum Contaminant Level* - The highest level of a contaminant that is allowed in drinking water. MCLs are set as close to the MCLGs as feasible using the best available treatment technology.
**MRDL:** *Maximum Residual Disinfectant Level* - The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.
**MRDLG:** *Maximum Residual Disinfectant Level Goal* - The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.
**TT:** *Treatment Technique* - A required process intended to reduce the level of a contaminant in drinking water.
**NTU:** *Nephelometric Turbidity Unit* - Turbidity is a measure of how clear the water looks. The turbidity MCL that applied to the Cedar supply in 2011 is 5 NTU, and for the Tolt it was 0.3 NTU for at least 95% of the samples in a month. 100% of the samples from the Tolt in 2011 were below 0.3 NTU.
**NA:** *Not Applicable* **ND:** *Not Detected*
**ppm:** *1 part per million = 1 mg/L = 1 milligram per liter* **ppb:** *1 part per billion = 1 ug/L = 1 microgram per liter* **1 ppm** = 1000 ppb

## Making sure your water is safe

Water from the Tolt and Cedar River watersheds may include the following contaminants: inorganic contaminants, such as salts and metals, which are naturally occurring; organic contaminants, which result from chlorine combining with naturally occurring organic matter; and microbial contaminants, such as viruses, bacteria, and protozoa from wildlife.

To make sure your tap water is safe to drink, the Environmental Protection Agency (EPA) and the Washington State Department of Health prescribe regulations that limit the amount of contaminants in water provided by public water systems. The Food and Drug Administration and the Washington State Department of Agriculture regulations establish similar limits on bottled water. As part of this process, the state evaluates the safety of water supplies by assessing sources of contamination prior to treatment. All surface waters in Washington are given a susceptibility rating of high, regardless of whether contaminants have been detected or whether there are any sources of contaminants in the watershed. For more information on Source Water Assessments, visit WSDOH's website at **www.doh.wa.gov/ehp/dw/default.htm**

## Treating your water

To improve water quality, drinking water from the Tolt supply is treated at a filtration and ozonation facility, and water from the Cedar supply is disinfected with new state-of-the-art ultra-violet technology. Fluoride is added to your water to prevent tooth decay, in accordance with a Seattle public vote in 1968. The concentration of fluoride was reduced in January, 2011 from 1 part per million to 0.8 part per million, the lowest concentration in the acceptable range defined by the WA State Department of Health. Chlorine is added to your water to prevent diseases such as cholera, giardiasis, and salmonellosis. Ozone and ultra-violet technology destroys Cryptosporidium parvum, a disease-causing organism found in the natural environment. (In 2011, testing showed no Cryptosporidium in samples from the Cedar River. It was detected in one of four samples from the Tolt River before treatment). After treatment, your water is safe to drink. It contains very few contaminants, and those present are below the allowable limits (see chart on left).

## Reducing lead from plumbing fixtures

If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. Bellevue is responsible for providing high quality drinking water, but cannot control the variety of materials used in plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at www.epa.gov/safewater/lead. You can also call Water Quality at 425-452-6192.

### Lead and copper monitoring results in Bellevue for 2011

| Parameter and Units | MCLG | Action Level+ | 2011 Results* | Homes Exceeding Action Level | Source |
|---|---|---|---|---|---|
| Lead, ppb | 0 | 15 | 7 | 4 of 50 | Corrosion of household plumbing systems |
| Copper, ppm | 1.3 | 1.3 | 0.13 | 0 of 50 | |

* 90th Percentile: i.e. 90 percent of the samples were less than the values shown.
+ The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.